

Claims

1. Pilot-controlled pressure feed valve, comprising a piston of a main stage whereby a connection between an input port and an output port may be controlled open, and the spring chamber of which is adapted to be connected with the input port via a piston bore and with a control oil drain via a pilot control stage, characterized by a throttle valve means which throttles a control oil flow through the piston bore from the input port into the spring chamber in a closed position, and controls open a comparatively large cross-section of flow in the anti-cavitation function in the event of a control oil flow in the opposite direction.
2. The pressure feed valve in accordance with claim 1, wherein the throttle valve means is a throttle check valve having a nozzle plate which is penetrated by a nozzle bore having a smaller diameter than the piston bore, and which is adapted to be taken with an end face thereof into contact with a nozzle plate seat, wherein the nozzle bore may be passed by in a condition where the nozzle plate is raised from the nozzle plate seat by a flow around said nozzle plate.
3. The pressure feed valve in accordance with claim 2, wherein the diameter of the nozzle bore is half the diameter of the piston bore at the most.
4. The pressure feed valve in accordance with claim 2 or 3, wherein the nozzle plate has at the circumference flattenings which delimit a cross-section of bypass flow.

5. The pressure feed valve in accordance with claim 4,
wherein the nozzle plate has an approximately
triangular base, at the corner ranges of which
supporting legs are formed which are adapted to be
taken into contact with an annular end surface of the
piston bore, and the curved outer circumference
surfaces of which are in contact against the inner
circumference walls of an expanded part of the piston
bore.
6. The pressure feed valve in accordance with any one of
claims 2 to 5, wherein the throttle check valve is
inserted into a valve chamber of the piston bore into
which a seat sleeve forming the nozzle plate valve
seat is inserted.
7. The pressure feed valve in accordance with any one of
the preceding claims, wherein it is usable in closed
or open hydraulic circuits with fixed/variable
displacement motors or pumps.